

3.8 Circuits with Capacitors and Inductors	62
3.9 The Impedance Concept.....	63
3.10 Time and Frequency Domains	65
Example 3.3	67
Exercise 3.10.1	68
3.11 Power in the Frequency Domain	68
Exercise 3.11.1	69
Exercise 3.11.2	70
3.12 Equivalent Circuits: Impedances and Sources	70
Example 3.4	72
3.13 Transfer Functions	73
Exercise 3.13.1	76
3.14 Designing Transfer Functions	76
Example 3.5	77
3.15 Formal Circuit Methods: Node Method	79
Example 3.6: Node Method Example	82
Exercise 3.15.1	83
Exercise 3.15.2	84
3.16 Power Conservation in Circuits.....	84
3.17 Electronics	86
3.18 Dependent Sources.....	86
3.19 Operational Amplifiers.....	89
3.20 Inverting Amplifier.....	90
3.21 Active Filters	91
Example 3.7	92
Exercise 3.19.1	93
3.22 Intuitive Way of Solving Op-Amp Circuits	93
Example 3.8	95
3.23 The Diode	96
3.24 Analog Signal Processing Problems	98
Problem 3.1: Simple Circuit Analysis	98
Problem 3.2: Solving Simple Circuits	99
Problem 3.3: Equivalent Resistance	99
Problem 3.4: Superposition Principle	100
Problem 3.5: Current and Voltage Divider	101
Problem 3.6: Thevenin and Mayer-Norton Equivalents	101
Problem 3.7: Detective Work	102
Problem 3.8: Bridge Circuits	102
Problem 3.9: Cartesian to Polar Conversion	103
Problem 3.10: The Complex Plane	103
Problem 3.11: Cool Curves	103
Problem 3.12: Trigonometric Identities and Complex Exponentials	104
Figure 3.61 Problem 3.13: Transfer Functions	104
Problem 3.14: Using Impedances	105
Problem 3.15: Measurement Chaos	105
Problem 3.16: Transfer Functions	106